amount of heat given to the checkerwork by the products of combustion.

The maximum quantity of gas required will be

3.5 (cu m per kg) X 1.25(kg coal)

=4.375 cu m per second.

The maximum quantity of air required will be

4.375X1.87 = 8.182 cu m per second.

The maximum volume of the products of combustion will be

4.375X2.68 = 11.725 cu m per second.

These volumes are reduced to zero C. and 760 mm of barometric pressure.

The average volumes will be as follows:

of gas: 3.5X0.5(kg of coal) = 1.75 cu m per second
of air: 1.75 X1.87 = 3.273 cu m per second
of products of combustion: 1.75X2.68 = 4.69 cu m per second

		Reversal Period = *t*
20 Minutes, 1200 Seconds	30 Minutes, 1800 Seconds	
Gas:		
Maximum calories=4.375X228.5X2=.	1,200,000	1,800,000
Air:		
Maximum calories=4.375X546.6XZ=.	2,871,000	4,306,000
Gas:		
Average calories = 1.75 X 228.5 X *t* =.	480,000	720,000
Air:		
Average calories = 1.75 X 546. 6X *t* =.	1,148,000	1,722,000
Allowing for a range of 200° in the checker brick and 90 per cent of its weight	as effective	e, the wei

ght of brick required will be

For gas:

20 min.: 1,200,000-s-
(200X0.25X0.90) =..... 26,66

30 min.: 1,800,000-K200X
0.25X0.90) =..... 40,00

For air:

20 min.: 2,871,000-s- 7kg
(200X0.25XQ.90) =..... 0 kg

30 min.: 4,306,000-r
(200X0.25X0.90) =..... 63,80
95,68

0 kg
0 kg